

North Cascades Resource Brief

National Park Service
U.S. Department of the Interior

North Cascades
National Park Complex



TOP: Example of unique chest markings photographed at a wolverine run-pole camera station.

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Wolverines

The wolverine (*Gulo gulo*) is one of the rarest mammals in North America and the least known of the large carnivores. It is designated as a candidate for listing as a threatened or endangered species in the contiguous U.S. by the U.S. Fish and Wildlife Service, and in the state of Washington by the Department of Fish and Wildlife. The northern Cascade Range in Washington represents the southernmost extent of current wolverine range along the Pacific coast of North America.

Wolverines are wide-ranging, inhabit remote areas near timberline where snow cover persists through mid-May (i.e., through the wolverine denning period), and are sensitive to human disturbance at natal and maternal den sites. Winter recreation activities are widespread in the northern Cascade Range, and often occur in suitable wolverine denning habitat, but the potential impacts of human activities on wolverine populations are largely unknown.

Status and Trends

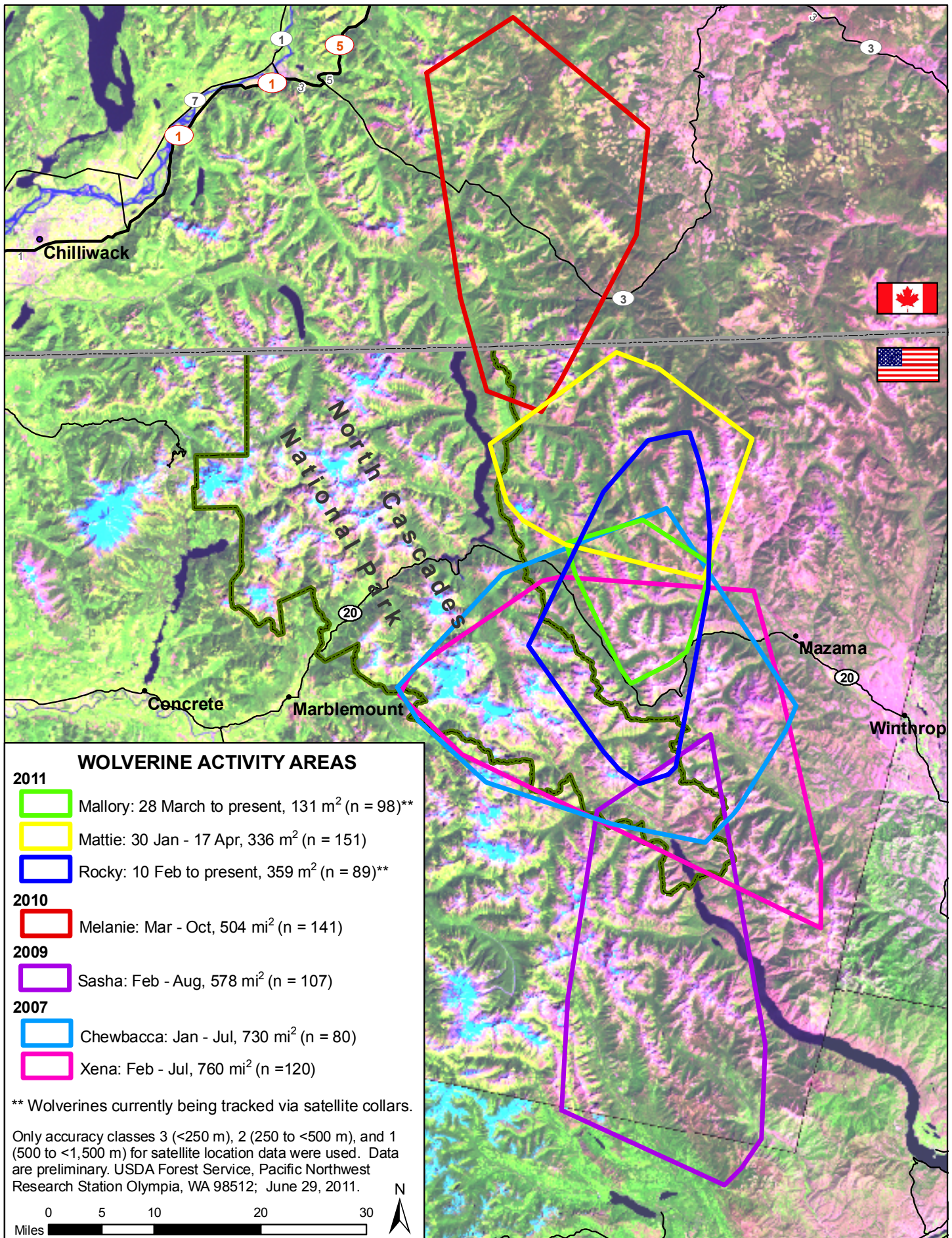
Recent research on the current and historical distribution of wolverines in the contiguous U.S. showed that the northern Cascade Range in Washington was a key component of the wolverine's historical range in the Pacific states. Historical records indicate that the wolverine probably became extirpated in this and other portions of its former range in the contiguous U.S. by the mid-1900s, due probably to excessively high levels of human-caused mortality during the late 1800s and early 1900s. Evidence that wolverines were recolonizing the North Cascades began to appear about 1995, when biologists detected wolverines on remote cameras and during aerial-tracking surveys for other species. Mounting evidence of an expanding wolverine population in this region led to the initiation of a radio-telemetry study by the Forest Service's PNW Research Station in the winter of 2005/06 to investigate

their ecology in the North Cascades ecosystem, and to better understand their population dynamics in southern boreal forests, where suitable habitat is often insular or peninsular in distribution. In 2009, the project expanded into British Columbia as a collaborative effort with the BC Ministry of Environment.

Discussion

As of March 2012, after 6 years of live-trapping wolverines and monitoring their movements and habitat use with Argos satellite telemetry (due to very limited access to the study area, wolverines are monitored via satellite, rather than by radio-tracking on the ground), the researchers have captured and monitored 9 wolverines (3 males, 6 females) in the North Cascades, plus one young female in British Columbia. Their activity areas are located primarily along the Cascade Crest from southern British Columbia to the southern end of Lake Chelan. Activity area maps are not yet available for the two new captures in 2012. The portion of North Cascades National Park that is located south of the North Cascades Highway (State Route 20), has been used by 4 of the radio-collared wolverines, and represents a major portion of the activity areas for 2 of those animals. Although the telemetry data in-

NEXT: Map showing activity areas of seven radio-collared wolverines in the North Cascades.



dicade that wolverines are resident in the North Cascades, the researchers have not yet detected evidence of successful reproduction in this region. Radio-telemetry research is planned to continue at least through the winter of 2011/12. When the telemetry study ends, the researchers are hoping to establish a long-term monitoring program for wolverines in the North Cascades using specialized “run-pole” remote-camera stations that enable researchers to identify individual wolverines without capturing them via photographs of their throat and chest blazes, which are unique to each individual. This technique produced multiple photographs of a newly documented wolverine at a run-pole camera station near Highway 3 in British Columbia in December 2011.

RIGHT: Map showing general locations of wolverine livetraps and run-pole camera stations across the study area.

